

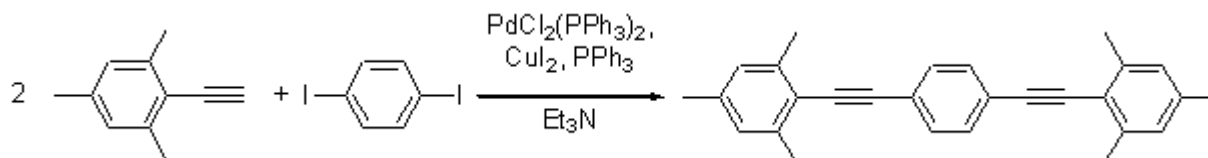
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1,4-Bis(2',4',6'-trimethylphenylethynyl)benzene

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The experimental procedure follows the general synthesis of arylalkynes reported by Sonogashira [1].

Thus a solution of 1,4-diiodobenzene (0.200 g, 0.60 mmol), 2-ethynylmesitylene (0.180 g, 1.24 mmol), bis(triphenylphosphine)palladium dichloride (0.035 g), copper iodide (0.020 g) and triphenylphosphine (0.077 g) in triethyl amine (20 mL) was refluxed under an argon atmosphere for 20 h [2,3]. The solvent was removed in vacuo and the solid residue partitioned between a (1:3) mixture of toluene and hexane (60 mL) and water (30 mL). The organic solvent was washed twice with water and then dried over magnesium sulfate. The solvents were removed in vacuo and the residue subjected to column chromatography with hexane as eluant to yield 0.163 g (75 %) of the title compound as fine white needles. The compound was recrystallized from ethanol.

M.p. 194-196 °C.

IR (KBr) 2920, 2201, 1615, 1510, 852, 833 cm⁻¹.

¹H NMR (200 MHz, CDCl₃): 2.30 (6H, s, CH₃), 2.48 (12H, s, CH₃), 6.91 (4H, s, Ar-H), 7.50 (4H, s, Ar-H).

¹³C NMR (200 MHz, CDCl₃): 20.84, 21.19, 89.18, 95.92, 119.89, 123.58, 127.79, 131.36, 138.18, 140.39.

Anal. Calcd. for C₂₈H₂₆, C: 92.77, H: 7.74. Found C: 92.51, H: 7.29.

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References and Notes

1. Takahashi, S.; Kuroyama, Y.; Sonogashira, K.; Hagihara, N. *Synthesis* **1980**, 627.
2. 2-Ethynylmesitylene was prepared according to the general procedure in reference 1.
3. Full characterization of 2-ethynylmesitylene is reported in: Tinnenmans, A.H.A.; Laarhoven, W.H. *Tetrahedron* **1979**, *35*, 1537.

Sample availability: available from the authors and MDPI.

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